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The Arboretum is a 230-acre dynamic garden of trees and shrubs, displaying internationally renowned collections of oaks, conifers, camellias, Japanese and other maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington Botanic Gardens and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

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 Brian R. Thompson



ABOVE: Rhododendron and primrose in bloom on the north end of the Visitors Center in spring.

ON THE COVER: Close-up of large fothergilla (*Fothergilla major*), native to the southeastern U.S., blooming in the Woodland Garden. (Photos by Niall Dunne)

Ten Years in the Arboretum

n April, I will celebrate my 10th anni– versary in the Arboretum. I have been told that there was discussion among the members of the search committee about whether to hire me. "She's a politician, and she will just use this job as a steppingstone and move on quickly." You know, it's funny that people said exactly the same thing about me when I was first elected to the Seattle Port Commission in 1987. I stayed at the Port for 18 years, so, perhaps, it should not have been such a surprise that I have stayed here longer than some folks expected. I love to start things and to make sure I see them through—and that often means taking the really long view. When you are working in a place as timeless as the Arboretum, I have come to see that the long view is essential.

So what has happened in the past 10 years, and what will happen in the next 10? It has been an amazing time here. We have installed the Pacific Connections Entry Gardens, Gateway to Chile, and the Cascadia and New Zealand Forests—a dramatic transformation of the south end of the Arboretum east of Lake Washington Boulevard. We have seen a lot of construction from the expanded SR520, but in return we got a commitment that all the ramps in the Arboretum would go away when the project is finished, and that a new Loop Trail for pedestrians and bicyclists would be built. Much of Arboretum Creek will be liberated from culverts and opened to the daylight, and the wetlands at its mouth will be restored. The new trail is under construction and should be done a year from now.

The Japanese Garden has a new Entry Gatehouse and community room—and it has been reconnected more closely with this Foundation, which first raised the money to build it.

The Fiddleheads outdoor preschool program is a huge success, and its new shelter stands in a forest grove on Arboretum Drive. The first fundraising for the new Environmental Education Center has begun—and our donors are being so generous and supportive.



We started a new volunteer stewards program to assist the professional staff in caring for the grounds of the Arboretum—and then took that concept over to the Japanese Garden to create the Niwashi Volunteer Gardener Program there.

And, what can we expect to see in the next few years? In September, we will see the opening of a new summer-oriented garden on Azalea Way to celebrate the Seattle Garden Club Centennial. Over the course of this year and next, you can expect to see more new events and programs in the Japanese Garden as we build up the activities associated with the Garden to make it an even richer center of Japanese culture and learning. We will host a major new fundraising party for the Japanese Garden here in August—and hold our second ArbFest, a Midsummer's Night in July.

Farther in the future, we will see the completion of SR520 and the installation of a new North Entry in the Arboretum, where all those construction buildings are spread out now, as well as the completion of the Environmental Education Center that was Sarah Reichard's dream. The three partners here are working more closely together than anyone can remember. That is good news. There is still so much for us to do here—and so many dreams to fulfill.

Thank you all for giving me the opportunity to help realize a few of those dreams in this last 10 years. It has been a rich and rewarding time.

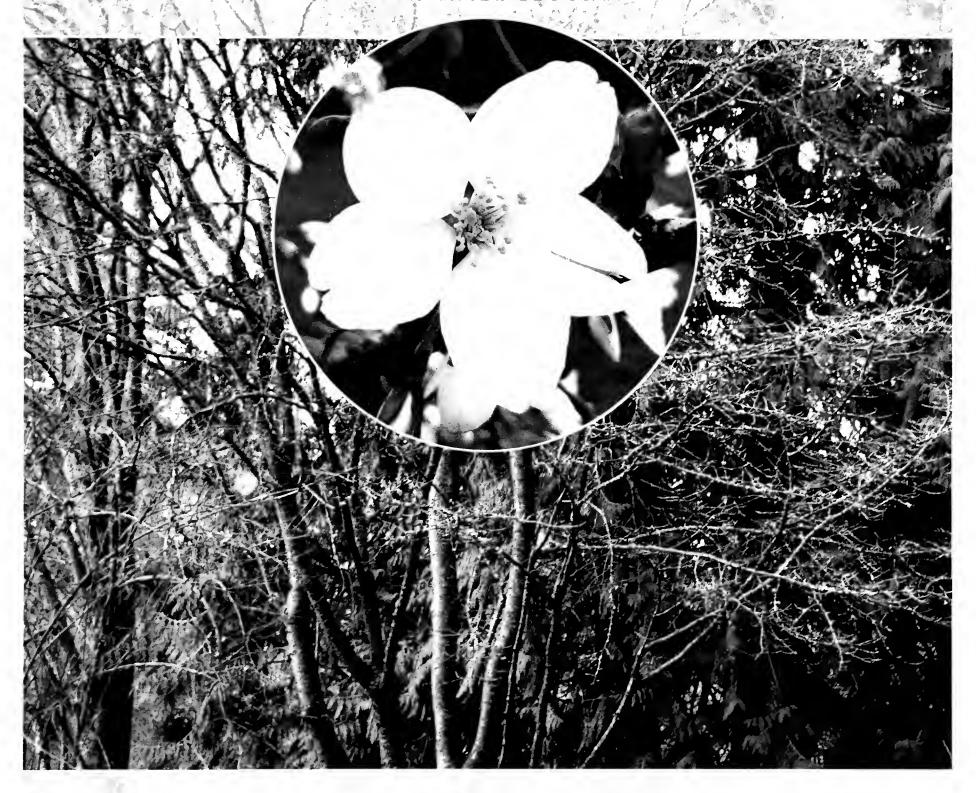
Cheers,

Paige Miller, Executive Director,
Arboretum Foundation

Lost in Translation

Searching for the Parent of an Arboretum Cherry Tree in Japan

BY DANIEL MOUNT



ne of my first tasks as a new volunteer at the Arboretum back in 1990 was to re-label the Japanese flowering cherries along Azalea Way. Working under the guidance of Jan Pirzio-Biroli, then the University of Washington's research/extension program assistant, I used the newly made grid maps of the park and the Arboretum's

historic accession cards to match names with the many tagless trees. It gave me a deep appreciation for the collection as a whole, but also for the individual trees.

Last September, weeks before I would take my first trip to Japan, I walked down Azalea Way, looking for one cherry in particular: *Prunus verecunda*. A week earlier, I had

ABOVE: The Arboretum's specimen of *Prunus verecunda* on Azalea Way, pictured in winter. (Photo by Niall Dunne) **INSET:** A blossom of *Prunus verecunda*. (©Dave Emley, Keele University Arboretum)

searched the UW Botanic Gardens' database for any plants in the Arboretum that might have come to us from Koishikawa Shokubutsuen, the botanical garden and arboretum of the University of Tokyo, which I was planning to visit. ("Shokubutsuen" means "botanical garden" in Japanese.) The *Prunus verecunda*, it turned out, is the only specimen of Japanese flowering cherry in our entire collection sourced from anywhere in Japan.

A thread of melancholia wove through my excitement about the visit to Japan. I had always dreamed of being there during Hanami, the wildly popular springtime tradition of picnicking and celebrating under the cherry blossoms. However, my trip was to be a fall one, and it was organized by the Hardy Fern Foundation, which promised more than 200 species of ferns over 10 days—but no flowering cherries.

Yet, I was on a mission. If I could connect in some way to the cherries of Japan, or one cherry at least, that would be some consolation. I decided I would visit the parent plant of our *P. verecunda* at Koishikawa, assuming it was there. This was an assumption based more on fancy than fact because our records about the seed we received from Japan in May of 1957 are not very specific. They just say "University of Tokyo Botanic Garden." We do know that the seed itself was planted and grew quickly to a sixfoot sapling. In January of 1962, the young tree was planted out at its present location near the honeysuckle collection, just across Azalea Way from the Hybrid Rhododendron Garden.

Our tree—now 60 years old—is of great stature. It has a large, oval crown and blooms with numerous small white flowers in early April. In Japan, it has earned the name kasumi-zakura or "mist cherry" because of the misty appearance it imparts to the mountains when it blooms there in spring.

A Storied Garden

Our tree is impressive, yet, I imagined its parent to be much older and bigger—a giant from another era, gnarly, half-dead maybe, with





great spreading limbs propped up on beautifully constructed buttresses. And I would be seeing it in Tokyo.

Koishikawa Botanical Gardens, Faculty of Science, University of Tokyo, as it is formally known today, is the oldest botanical garden in Japan. Densely forested in parts, the 40-acre park sits on a hill, a green beacon above a seemingly endless ocean of urbanization.

It was founded in 1684 by Tsunayoshi Tokugawa, the fifth shogun of the Tokugawa dynasty (1603–1867; the last of Japan's feudal military governments), as a medicinal garden. Tsunayoshi, trained as a scholar not a warrior—a rarity at the time—was interested in medicine and botany, fields tightly bound in those days. His garden served as a medicinal herb garden for the shogunate. In 1877, during the Meiji

restoration (which restored imperial rule to Japan), the emperor gave Tsunayoshi's former garden to the newly formed University of Tokyo. It has been the center for the modern study of botany in Japan since.

Before I left for Japan, I contacted Koishikawa Botanical Gardens through their website to try to find out if a *Prunus verecunda* did exist there, and if so, if it was the source of the seed we received back in 1957. My emails were never answered, and that was my first inkling of the language barrier I was about to face.

The Search Begins (and Quickly Ends)

When I finally entered the garden last October, the sun was shining, and I was full of hope. After I paid the entrance fee, I asked the docent in my clumsy Japanese: "Doko wa sakura desu ka?"



"Where are the cherries?" She opened a map of the garden before me on the counter and circled a rather large area with her finger.

Then I opened my notebook and printed on the page the letters: P-R-U-N-U-S V-E-R-E-C-U-N-D-A. And said "Doko desu ka?" "Where is it?" The docent turned to her cohort, who was busy at a computer screen, showed her what I had written and began a dialogue I could not follow.

Then she turned the screen toward me and said, "big tree dead...small tree," and pointed to a specific location on the map.

So there had been a giant P. verecunda here, at some point in time!

Well, let's have a look anyway, I thought. Perhaps there'll be a sizable stump I can see. I said "Arigato gozaimasu," followed that with an affected small bow, and headed into the garden.

Like many university gardens I have visited throughout the U.S. and Europe, this one had a distinctly Victorian feel. Broad walkways lead through park-like grounds, with special collections of ferns and medicinal herbs, and with an exhibit about plant systematics (classification) laid out in geometric beds. When Emperor Meiji gave the garden to the University of Tokyo, Japan was turning from its feudal isolation toward the larger world, with its burgeoning industrial revolution and capitalism. Japanese botanists were traveling to European and American gardens and adopting western methods of scientific study.

But my interests were with Japanese cherries, not European systematics, and with finding the possible parent of our tree.

TOP: A couple photographing a fall-blooming cherry, *Prunus* x subhirtella 'Autumnalis', at the Shinjuku Gyoen garden in Tokyo. INSET: A stone torii indicates the presence of a Shinto shrine at the Koishikawa Botanical Gardens. (Photos by Daniel Mount)

The cherry collection is the most open area of the park. Vast lawns and widely spaced trees made it easy to imagine centuries of Hanami celebrations. On that sunny day, a large group of well-dressed young parents guided innumerable toddlers through races and ball throwing, offering juice boxes and comfort to the crying. I could have been in Wallingford as easily as Tokyo.

I found the stump of *P. verecunda* on the edge of this venerable grove. A sapling planted quite nearby was exactly where the docent showed me it would be.

But this plant was labeled P. cerasoides.

I looked at each lumpy ancient trunk I could find in the cherry collection for tags, just in case the docent was wrong. There were *P. sargentii, P. serrulata* and *P. subhirtella*, but no *P. verecunda*.

My mission thwarted, I began to wander beyond the cherry collection into the heavily forested part of the park, partly a remnant of the Taiheiyo (Pacific) evergreen forests, once native to the now heavily developed hills of Tokyo. Suddenly, the docent came riding up on a bike. Winded and smiling, she held up a map on which she had written in block roman letters: *Prunus verecunda* and *Prunus serrulata*. She pointed to the former and said "not here;" she pointed to the latter, and said "close related;" then she pointed to areas on the map where I might find them. I thanked her again in horribly anglicized Japanese and gave as low and sincere a bow as I could muster.

Taxonomizing in Tokyo

The docent sparked a memory. I recalled that, on the accession card back in Seattle, former Arboretum director Brian Mulligan had crossed out the name *Prunus verecunda* in 1985 and replaced it with *P. serrulata* var. *spontanea*. (The tag on our tree remains *P. verecunda*, because many reputable sources still list it that way.)

Wybe Kuitert, author of "Japanese Flowering Cherries" (Timber Press, 1999), says that *P. verecunda* is an older name for *P. serrulata* var. *pubescens*. One of the defining features of this variety is the hairy undersides of the leaves, and sure enough our specimen of *P. verecunda* shares

this feature. But flowering cherry taxonomy is a baffling business—not least because of the long, unrecorded history of hybridization among these plants—and we'll be sticking with our name for now.

I spent the rest of my day taking in the many aspects of the garden, including the perfectly ordered medicinal herb garden, the fern garden with more than 130 species, and the camellia collection just starting to bloom. I stopped at the two Shinto shrines, guarded by stone foxes, tucked into nooks under ancient trees. I wandered through the Japanese garden and went to an art exhibit at the Meiji-era medical college building, which moved to the garden in 1969. I watched butterflies battle over thistle heads and listened to the songs of invisible birds high in the treetops—all the while putting off my return to the rumbling mega-city just outside this oasis.

The next day—my last one in Tokyo—I went to another garden, Shinjuku Gyoen National Garden, where I actually saw a cherry tree in bloom. A couple stood in front of an autumn cherry tree, *P.* × *subhirtella* 'Autumnalis'. The man asked the woman to step in among the branches to frame her face with pink flowers, so he could take a picture with his smartphone. There was no sake drinking nor haiku being recited, but I got to have a little taste of Hanami after all.

A few days after I got home, I woke at 1 a.m.—it was 6 p.m. in the evening in Tokyo after all. I decided to look at the little guidebook that I had bought at the Koishikawa garden gift shop. And there it was, on page 56, *Prunus verecunda*! A live specimen was growing in the Tokyo University's extension garden at Nikko, 92 miles north of Tokyo.

I guess I have to go back! ~

DANIEL MOUNT is an estate gardener, garden writer and member of the "Bulletin" Editorial Board. He lives on a small farm in the Snoqualmie Valley. Read more of his reflections on plants and gardening at www.mountgardens.com.



Arboretum Drive around
Easter, pause to consider
the Judas tree, Cercis siliquastrum,
located on the north side of the
small parking lot that's just
north of the towering grove
of giant sequoia. Its common
name derives from the belief
that Judas Iscariot hanged himself from this tree species after
he betrayed Jesus. (It has other
common names, too, with more
cheerful connotations—including the
love tree and the Mediterranean redbud.)

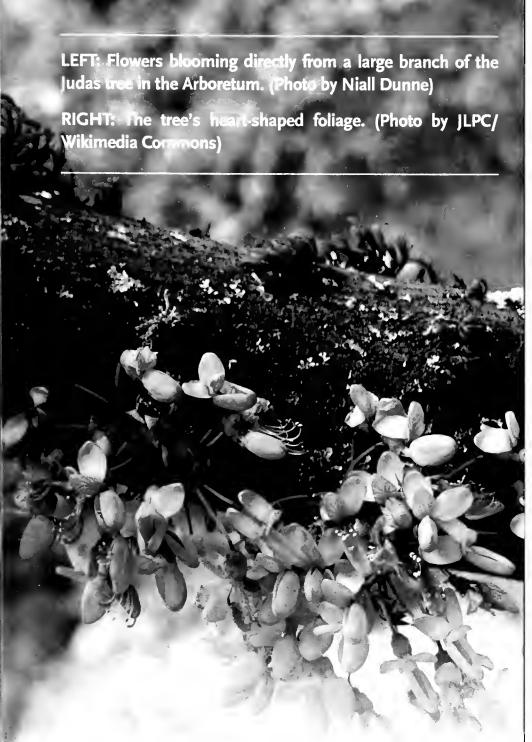
Even without the Biblical backstory, it's a tree worth considering, due to its undemanding nature and fine ornamental qualities. In late spring, small, rosy-pink, pea-like flowers cover the branches and even the trunk. The plant's alternate, heart-shaped leaves, which appear after the flowers, emerge reddish bronze, change to gray green for most of the season and then

turn yellow to chestnut brown in fall.

Cercis siliquastrum is a member of the pea family (Fabaceae). The great 18th-century Swedish botanist Carl Linnaeus first described the plant and gave it its species name, which comes from the Latin word siliqua, meaning "pod." The flowers of the Judas tree develop

into flattened, purple-tinted, peapod-like structures that persist into late summer.

Native from Southern Europe to Western Asia, the plant has been widely cultivated since ancient times. It can grow up to 25 feet tall and often has a shrubby, multitrunked habit, though the specimen in the Arboretum is a handsome, slender tree with a single trunk. It does best in full sun and moist, well-drained soil. The flower show is at its most impressive when the previous year's summer has been long and warm.



Soviet-Era Intrigue

The narrative of our Judas tree doesn't end here, however. Just as interesting as the tree's connection to the Bible and its physical beauty—or perhaps even more so—is the story behind how it became a member of the Arboretum collection. Enter Scot Medbury, the current president of the Brooklyn Botanic Garden.

Back in the late 1980s, Scot was a student in the Masters of Science Program at the Center for Urban Horticulture. His undergraduate degree—also from the University of Washington—had been in Russian and East European Studies. In August 1989, as a result of his background and skills, Scot joined Willis Konick, a celebrated UW professor of comparative literature, as a co-guide on a garden tour of seven Soviet cities.

As Scot relates the story, "Willis was culture, and I was horticulture. That summer proved a very interesting time to take a group of Americans to the Soviet Union, as there was much evidence of change afoot, momentum that ultimately led



to the collapse of the Soviet government the following year.

"One of our tour's highlights was a visit to Soviet Georgia and its beautiful capital, Tbilisi, which boasts a magnificent 17th-century botanical garden right in the city center. Our group made a day trip out into the countryside, visiting Gori, Joseph Stalin's birthplace, and also the ancient rock fortress Uplistsikhe on the banks of the Kura, or M'tk'vari, River.

"It was there that I gathered a few pods of the native *Cercis siliquastrum* that dotted the gravelly banks of the river.

"It being the dry season, the flow of water in that very broad riverbed was reduced to a narrow central channel, with the rest of the sandy riverbed thick with naturalized *Cannabis sativa*. It was a very hot day when we walked around the caves of Uplistsikhe, and at one point we visited the rustic home of a goat herder, who offered us fresh water from his well. I asked this man (in Russian) if anyone smoked the leaves of the plant growing in the riverbed, and he just smiled very broadly.

"The entire tour, especially of Georgia, was very memorable, and it's nice to know that there is a living legacy of our trip during that historic time growing in the Arboretum!"

According to the Arboretum's historic records, Scot's Judas tree seed was accessioned in 1990, propagated, and then planted out in 1995. Since then, the tree has grown to about 15 feet tall.

White-Flowering Form

The Arboretum is home to another specimen of the Judas tree. A white-flowering



The Judas tree blooming in April along Arboretum Drive. (Photo by Niall Dunne)

form, C. siliquastrum f. alba, can be found near Rhododendron Glen, just south of parking lot #6, between Arboretum Drive and the upper trail of the Lookout Loop. It was also grown from seed acquired in 1990, but via the Index Seminum program. In this case, the seed was supplied by Giardini Botanici Hanbury, in northern Italy. Its condition was last recorded in 2013 as "good;" the plant produced "abundant pods" that year. Apart from its white flowers, alba doesn't significantly differ from the straight species.

While strolling in the Arboretum on your way to visit the Judas tree, pause to reflect on the hidden treasure trove of stories behind the Arboretum's other plants. Just like with people, many of the trees and shrubs have good yarns worth telling. ∾

Janine Anderson, CPH, is an award-winning, Pacific Northwest-based landscape designer (www.anderson-design.net), garden writer, and member of the "Bulletin" Editorial Board.

Royalty Blooms in the Japanese Garden

BY CORINNE KENNEDY



he elegant simplicity of the royal azalea makes it particularly appropriate for any garden influenced by Japanese aesthetics, including the Seattle Japanese Garden at Washington Park Arboretum. This deciduous azalea received the British Award of Merit in 1896 and is considered by many experts to be one of the finest azalea species.

Rhododendron schlippenbachii (royal azalea) was discovered in 1854 by a Russian naval officer, Baron A. von Schlippenbach—hence the unwieldy species name. It is native to Korea, the Korean archipelago, Manchuria and the Russian Far East, but probably not Japan; authorities disagree on this point. It is very common in Korea, where it forms the dominant understory in open woodlands on the lower slopes of mountains.

In his book "If I Were to Make a Garden," the English plant explorer Ernest Henry Wilson recalled a trip to Korea, where he viewed "the wonderful sight of mile upon mile of drifts of purest pink...Through thin woods of oak with gray and rose-tinted unfolding leaves, I have walked for hours among myriad blossoms of this beautiful Azalea."

In April, royal azalea offers lightly fragrant, saucer-shaped flowers. Held in loose clusters

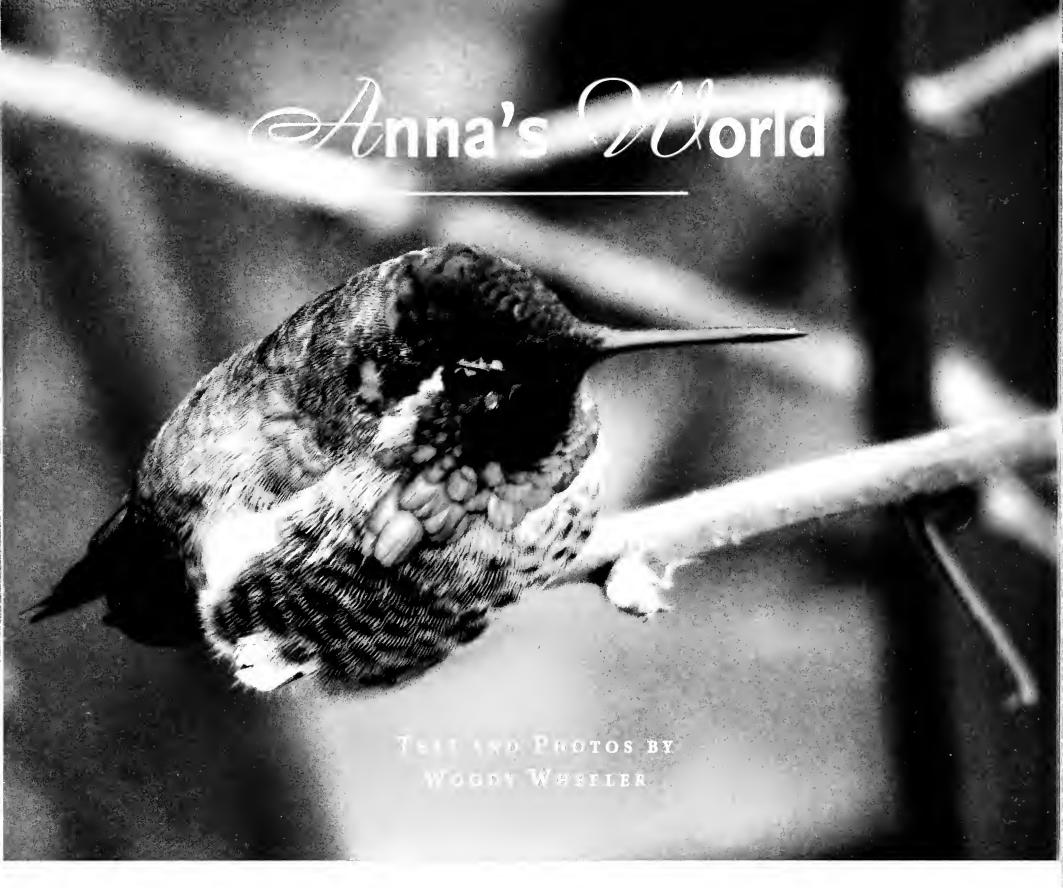
of three to six, they are pale pink or white, often with reddish-brown flecks. The rounded leaves appear in groups of five at about the same time, and seem to be whorled (swirled) at the stem tips. Thinly textured, the foliage will burn if not given protection from the afternoon sun. In open shade, autumn transforms it into fiery shades of yellow, orange and crimson.

In its native woodlands, the royal azalea becomes a large shrub and develops an upright, open habit, to about 15 feet tall. In cultivation, particularly in areas with more morning sun, it usually grows to about four feet tall in 10 years, with a dense, more rounded habit. It's very hardy and particularly suited to areas with cold winters, such as parts of eastern North America. It also does well in the Pacific Northwest. Admirers are likely to find it in the larger retail nurseries.

Rhododendron schlippenbachii is truly a four-season plant, with its purity of flower, leaf and form. In the Japanese Garden, its pale spring flowers and brilliant fall foliage are very much at home.

Reprinted from the blog of the Seattle Japanese Garden, at seattlejapanesegarden.org.

CORINNE KENNEDY is a retired garden designer, a Seattle Japanese Garden Guide and a regular contributor to the garden's blog.



f you have been birding on the West Coast lately, you have probably seen Anna's Hummingbirds. This species seems to be adapting well to human-altered landscape. Nationally renowned birder and author Kenn Kaufman refers to Anna's as "the familiar year-round hummer of the west coast..."

Hummingbirds have dramatically expanded their original range in Baja California and western California to include the entire Pacific Coast, extending north to British Columbia and east to Arizona and Texas. Why the range expansion in this era of degraded and often declining habitat for many bird species? Anna's Hummingbirds have benefited from the cultivated, exotic plants that bloom all year long in our gardens and parks (the early-blooming mahonias at Washington Park Arboretum, for example,

are magnets for Anna's in the wintertime!), and from the widespread use of sugar-water feeders. Climate change may be a factor, too.

Another interesting aspect of the range expansion is that Anna's have become resident in the northern reaches of the range, such as the Seattle area. How does this tiny bird survive cold winters? Anna's and other hummingbirds are capable of going into a state of torpor. In this state, they lower their metabolism significantly

Some Nectar Plants for Attracting Anna's

Mahonia Manzanita Salvia Penstemon **Fuchsia Abelia** Ribes Phlox

during cold temperatures, especially at night. They can adjust their internal thermostat from a normal daytime temperature range of 104–111 degrees F to 55 degrees F. They can also reduce their heartbeat even more dramatically—from an incredible high of 1250 beats per minute during flight and foraging to a normal resting rate of 250 per minute, all the way down to 50 beats per minute at torpor.

Named after Anna de Belle Massena, wife of the Duke of Rivoli, an amateur 19th century French ornithologist, Anna's are showy birds that vocalize more often than most humming-birds. You can often hear the squeaky, raspy, song of the male in the treetops around Seattle and other Northwest cities. As the weather warms and brightens, Anna's males can be seen flying straight up into the air, then dropping precipitously and looping back up again, making a loud "chirp" noise at the bottom of their dive.

Anna's are mostly green and grey in color, but the males can be distinguished by the iridescent red plumage on their heads and necks. When light hits this plumage at the right angle, it flashes a spectacular bright magenta.

Anna's nests are hard to spot and amazingly compact. They are made of plant down and spider webs. Lichens are often used for camouflage. Hummingbirds are fiercely territorial around their food and nest, and Anna's are no exception. I once watched one depart from our backyard feeder to chase a Bald Eagle flying above our house. They seldom allow a second hummingbird to share our six-port feeder.

Having sufficient, reliable food is vital; hummingbirds can eat up to twice their body weight in nectar per day, along with numerous small insects or spiders. The many backyard feeders, seeming to multiply each year, provide lots of supplementary sugar water. (See "Feeder Recipe and Care" for tips on using a hummingbird feeder in your garden.)

Being a part of "Anna's World" is a great pleasure. These birds are worthy of their royal name. Look up to find a royal flash of color in the treetops where they perch and sing, and then search for them dipping their long bills into the tubular blossoms and the hummingbird feeders they frequent. ••

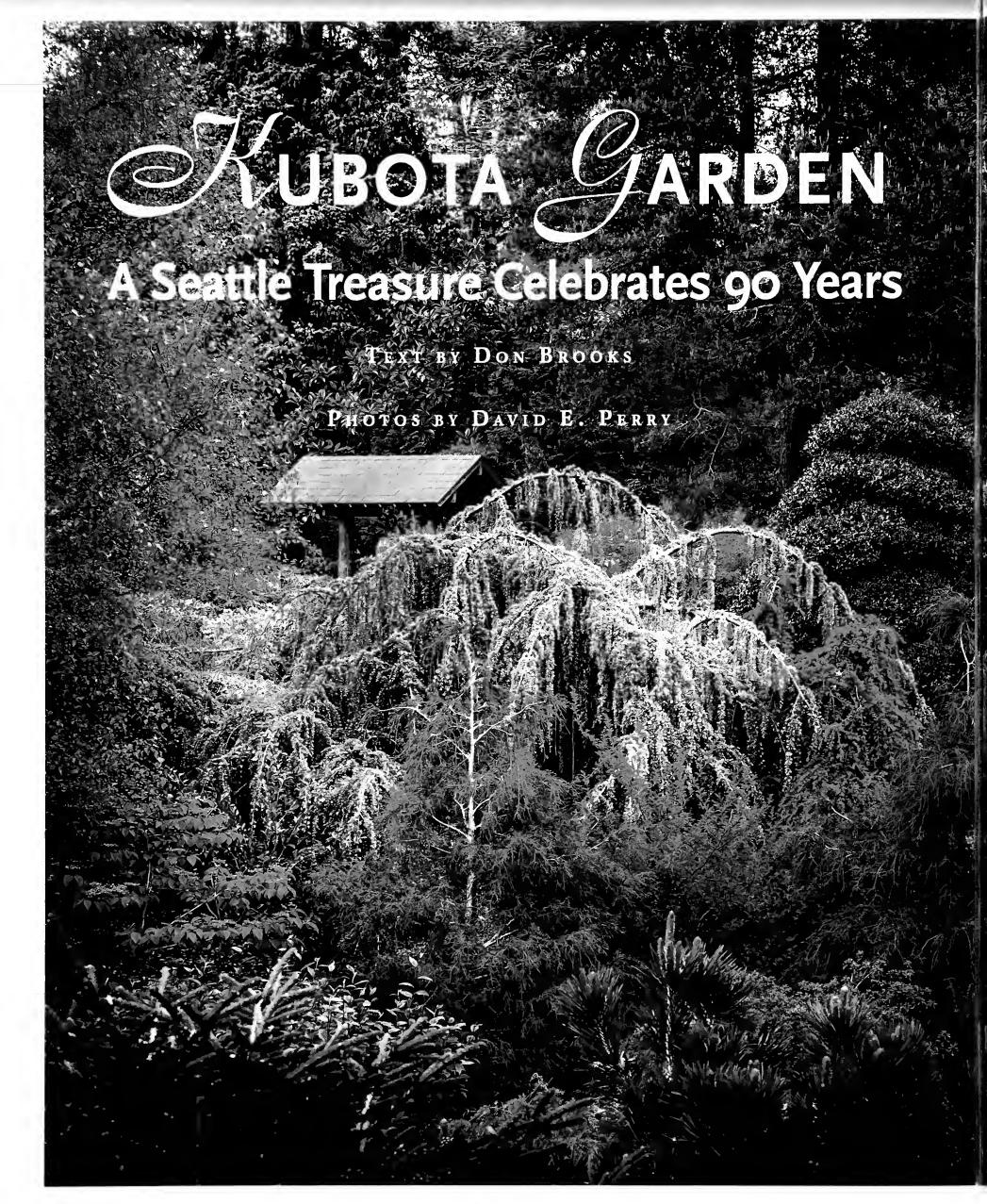
Adapted from "Look Up: Birds and Other Natural Wonders Just Outside Your Window," a collection of essays by Woody Wheeler (Influence Publishing, 2014). Copies can be purchased online or in the Arboretum Shop.

WOODY WHEELER is a Master Birder, Certified Interpretive Guide, and owner of Conservation Catalyst, a birding and natural history firm. Connecting people to nature is his passion, and he does this through trips, classes and presentations, and by writing nature blogs on his website, www.conservationcatalyst.com.

Feeder Recipe and Care

To feed hummingbirds, you only need to mix sugar with water. No red dye is necessary. The basic recipe is one part sugar to four parts water. Boil the water first, then cool it. This will make the mix last longer without spoiling. If you want hummingbirds at your feeder on a regular basis, clean your feeder weekly throughout the year and twice a week during warm weather.

When it snows, or whenever temperatures dip below freezing at night, bring the feeder inside to thaw it out. You can bring it inside overnight and put it back out early in the morning. Anna's Hummingbirds are incredibly hungry during cold spells and sometimes will land on the feeder while you are holding it! In fact, if you don't keep the feeder filled and thawed all winter, the Anna's Hummingbirds that have been depending on it may starve.



any connoisseurs of Japanese gardens know that Seattle sits in a location that's very favorable—climatically speaking—for their creation. The Seattle Japanese Garden, located in the Arboretum, is a prime example, with its

ability to grow pines, maples and lush carpets of moss very comparably to Japan.

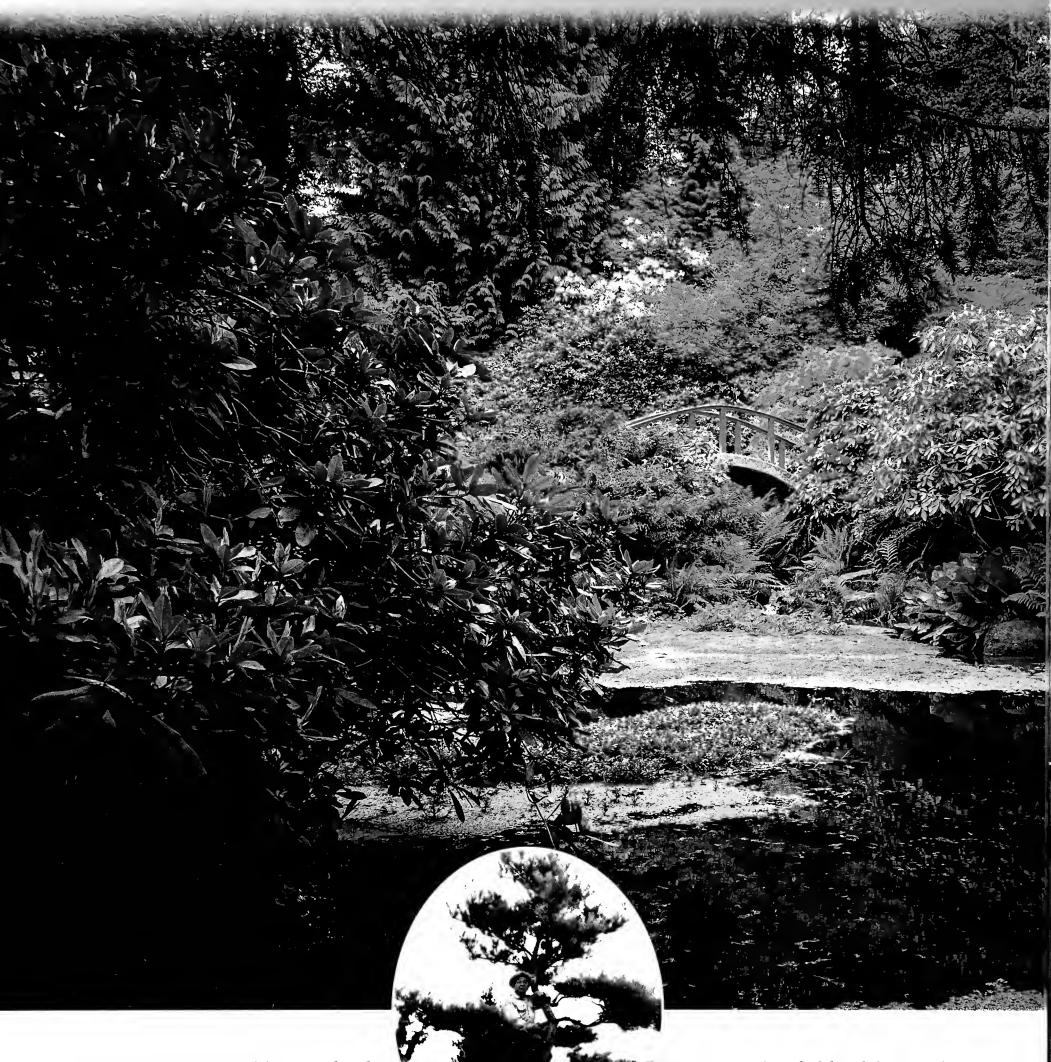
Seattle is fortunate to have another major Japanese garden, located about eight-and-a-half miles to the south, which also benefits from these favorable conditions. The 20-acre



Kubota Garden features streams, waterfalls, ponds, bridges, rocky outcroppings, and a diverse collection of mature plants.

Unlike the Arboretum's garden, Kubota isn't a traditional Japanese garden. It is often referred to as an American-Japanese garden, or

occasionally as a Japanese garden with Northwest influence. The garden's founder, Fujitaro Kubota (1879–1973), was born and raised in Japan and occasionally returned there following his immigration. He was not welcomed into the community of Northwest gardeners, and perhaps



this—along with a stubborn individualistic streak—led him to define his own style. This style was characterized by the use of Japanese design concepts to display dramatic plant choices, including many Northwest native plants.

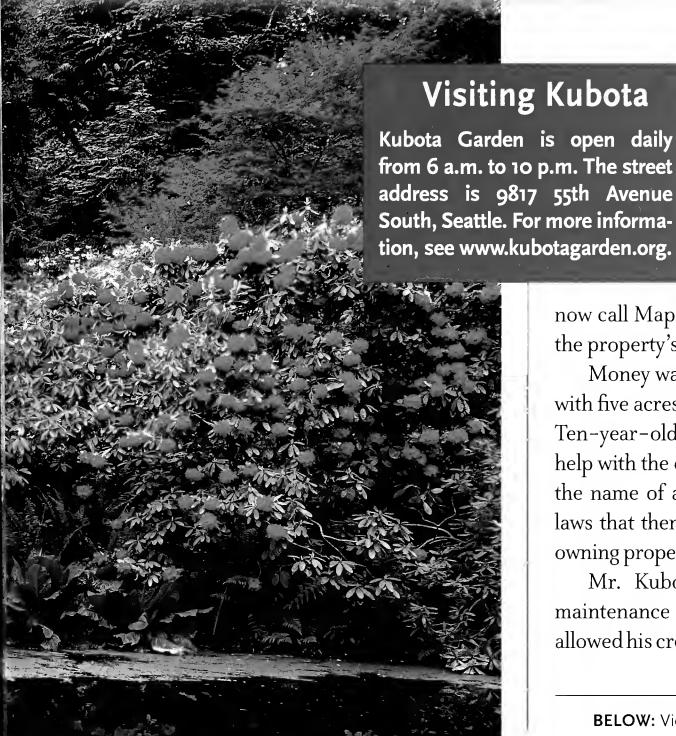
An Immigrant's Story

Mr. Kubota came to the United States in 1907, first landing in San Francisco (by way of Hawaii) and then working his way north to Seattle. Before

entering the field of horticulture, he took jobs in the timber industry and in hotels in Seattle's International District. As a gardener, he quickly evolved beyond the typical maintenance worker of the time into a designer who created new gardens for

clients. Demand for his services quickly grew. In the 1920s, he looked for a piece of property to develop his own garden. His son, Tom, told me of frequent family trips, mostly on Sundays, to look at properties or to go into the mountains to

ABOVE: The Moon Bridge over the Necklace of Ponds.



bask in the native flora. Their search took them all around Seattle, but when they walked onto the grounds of a property in the Rainier Beach area in 1927, they knew they had found

the spot. They heard the sound

of running water—a stream we now call Mapes Creek—and saw the potential of the property's steeply rising hill.

Money was hard to come by, but they started with five acres before eventually expanding to 20. Ten-year-old Tom Kubota even gave his savings to help with the original purchase. Mr. Kubota used the name of a sympathetic friend to get around laws that then precluded Japanese citizens from owning property in Washington State.

Mr. Kubota eventually moved his garden maintenance company onto the site, and this allowed his crews to work on the grounds between

BELOW: Viewing south towards the Kubota Terrace.





jobs. The garden was an active nursery: The family grew many plants that eventually ended up in customers' gardens. They also maintained impeccable turf, which was a very difficult thing to do prior to the introduction of herbicides. Potential customers and Seattle's Japanese-American community flooded the garden during special events.

Challenging Years

The garden survived the difficult years of the Great Depression, but World War II brought even greater challenges. The family was relocated to the Minidoka internment camp, in Idaho, with the exception of son Tom, who enlisted in the army.

During his internment, Mr. Kubota supervised the construction of a community park inside the camp, which included a Japanese rock garden. As chief gardener, he also orchestrated the creation a beautiful ornamental landscape around the camp's now-historic Honor Roll, a threepaneled sign that listed the names of internees who volunteered or were drafted into service.

When the war ended, the family returned to Seattle. Tom reported that former customers welcomed their return. A lot of work had to be done to restore the garden, which had suffered three years of neglect.

Focus on Design

After the war, the family changed the focus of the business away from maintenance to pure design and construction. No design was ever rendered on paper, and contracts were based on a handshake. Most customers knew not to interfere with Mr. Kubota's masterful designs: They had to accept that were getting a one-of-a-kind garden created by an artist. Requests for design modifications were ignored or taken very lightly.

Well-known examples of Kubota's work include the garden at Seattle University and

the Japanese garden at Bloedel Reserve on Bainbridge Island. In 1966, Washington State changed its discriminatory laws, and Mr. Kubota was finally permitted to become the owner of his own fabulous garden.

Mr. Kubota began his garden when he was in his fifties, and as he got older, his many other interests occupied more of his time. He loved acting, attending his church and traveling back to Japan. Prior to his passing in 1973, at the age of 94, he was awarded the Fifth Class Order of the Sacred Treasure by the Japanese Government for his work introducing Americans to Japanese culture. His style—a fusion of Eastern and Western horticulture—was original when he began. Nowadays, it's a style seen in gardens on every street in Seattle.

A City Garden

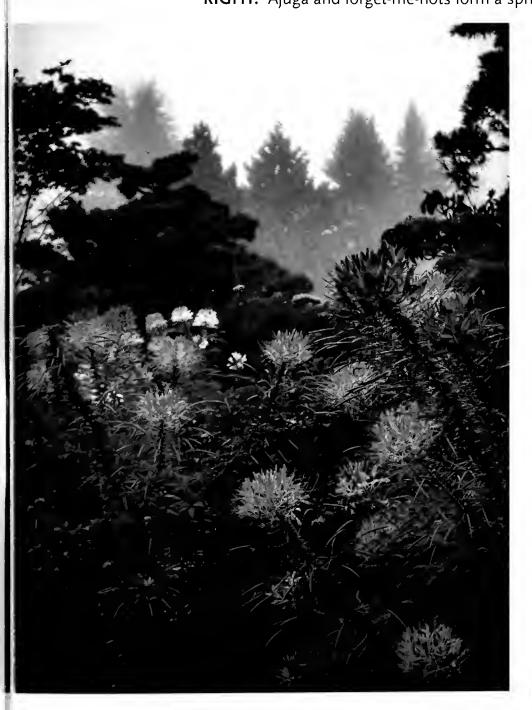
By the 1970s, it was getting more difficult to afford to keep 20 acres in the city, and developers

were making generous offers to purchase the property. One such offer proposed the building of some 250 housing units on the grounds, but the neighborhood banded together to fight it. Eventually, in 1987, the City of Seattle purchased the garden and assigned its management to the Parks Department.

At that time, only about a third of the property had been developed into a garden proper. After a number of public meetings, Parks decided to follow Kubota's original vision and develop the entire 20 acres in the style in which it had been begun. The Kubota Garden Foundation formed and has been very active in financing improvements and publicizing the garden.

Since the late 1980s, about another third of the garden has been built out by the Parks Department and Foundation. The final third is under development. It's exciting for a gardener—to be involved with the design and planting of such a large garden space.

LEFT: Cleomes in bloom, with fog-enveloped conifers in the background. **RIGHT:** Ajuga and forget-me-nots form a spring-blooming groundcover in the Stroll Garden.





The challenges of the garden have been many. At the time of the property transfer, Kubota was a private demonstration garden and nursery. Transforming it to an open, public garden has meant satisfying the needs for parking, safe trails and constant maintenance. Three full-time gardeners currently care for the garden, with help from many volunteers, as well as occasional assistance from other Parks crews.

Care is taken to follow the Kubota design style as closely as possible. You can see this in the garden's dramatic use of color and foliage—achieved through the planting of signature taxa, particularly conifers and maples. The Kubota family was also known for its exceptional stone work, and this legacy has been honored and continued in numerous projects throughout the garden over the years.

The future is bright for the Kubota Garden.

Visitor numbers are rapidly climbing, and many projects are planned for the near future. Come visit this lovely Japanese garden that is also a truly American success story.

DON BROOKS is Seattle Parks and Recreation's senior gardener at Kubota Garden.

DAVID E. PERRY is a Seattle-based photographer specializing in garden photography. He teaches regular classes at the Center for Urban Horticulture. See many more of his wonderful photos at https://davidperryphoto.myportfolio.com/projects.

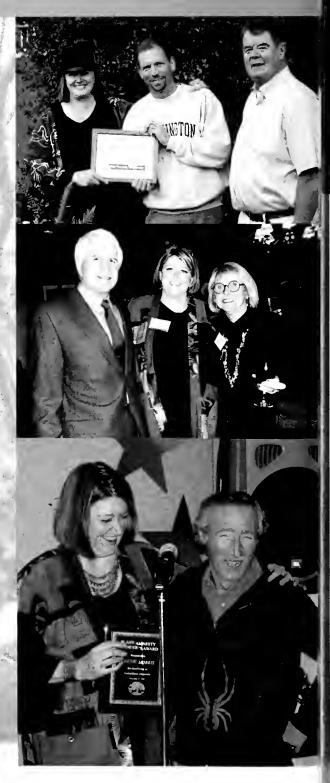
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Cass

The Arboretum family was deeply saddened by the news of the sudden and unexpected passing of our dear friend Cass Turnbull. She died in January of a heart attack while on vacation, at age 65. Through her organizations PlantAmnesty and TreePac, Cass championed the protection of trees and green space in our city. She served on "Bulletin" editorial board for the past 17 years and wrote many illuminating and funny articles. She is greatly missed.





Ву Јони А. Wотт

Parrotiopsis jacquemontiana is a delightful, deciduous large shrub or small tree in the Hamamelidaceae, or witch-hazel family. Once you see it in bloom, you'll be tempted to get one for your garden. Unfortunately, it is quite rare in cultivation and usually only seen in collectors' gardens. The Arboretum has a few fine specimens that put on a lovely show in early spring.

Parrotiopsis has masqueraded under several names since its discovery in 1836 by the Scottish botanist and geologist Dr. Hugh Falconer in the

western part of the Himalayas. Some botanists have considered it to be in the *Fothergilla* genus, while others aligned it with *Parrotia*, another member of the witch-hazel family.

It's found naturally in the undergrowth of mid-elevation forests, from Afghanistan to northwest India. In the wild, the plant reaches a height of 15 to 20 feet and boasts a smooth, gray trunk and much-branched, bushy head. In a garden setting, it is most often a widely spreading, upright, multi-stemmed shrub and makes an ideal candidate for a large border. *Parrotiopsis* is easy to identify in the wintertime, due to the hairs covering the young, bare twigs. Once established, the plant requires little or no pruning.

Easy-Going, With Fabulous Flowers

The flowers—actually flower heads consisting of a tight cluster of petal-less flowers covered in bright-yellow stamens-appear in late March and early April on bare wood atop creamy-white bracts, looking like a cross between the blossoms of a dogwood and a Fothergilla. Because of the "airy" or "spidery" appearance of the flowers along the branches, Parrotiopsis often looks best when placed against a dark backdrop for good contrast.

The leaves start to appear not long after peak bloom-short, round, broadly toothed, glossy and light green. Small hairs cover the underside of each leaf, especially along the spines. If the foliage manages to persist into the fall, it often turns a bright yellow. The fruits—capsules with glossy, brown seeds—are pretty inconspicuous.

Parrotiopsis prefers semi-shade, although it seems to tolerate Northwest sun. It also prefers woodsy, fertile, well-drained, acidic soils. But again, it's a pretty easy plant to grow and can adapt to a variety of soil conditions.

After the initial discovery of Parrotiopsis in the 1830s, it seemed to take some time for the plant to be embraced by the horticultural community. (The first reports of it in cultivation were from Kew Gardens, in London, in 1879.) Perhaps this is because when the plant is not in bloom or sporting fall foliage, it's not particularly showy.

Among the different genera in Hamamelidaceae, the witch-hazels (Hamamelis) are the superstars. But I think the large inflorescences of Parrotiopsis—which are sometimes two inches across—can give the witch-hazels a run for their money. What's more, unlike witchhazels, which only offer one season of bloom (early spring for most species), Parrotiopsis follows up its spring flowering with intermittent summer blooming.

The plant is easily propagated by seeds: You just need a lot of patience. That's because germination can take up to 18 months! It helps if you first stratify the seeds (keep them in cold, moist conditions) for at least four months. The long germination period is perhaps the main reason we don't see this plant more often in gardens, but hardwood cuttings also can be taken, shortening the propagation time.

The ethnobotany of Parrotiopsis is interesting. The twigs of the plant are strong and flexible, and—in the western Himalayas—they are used for making baskets. They're also twisted together to make ropes for bridges. The wood is hard and close-grained and can be used for making walking sticks, tent pegs, axe handles and more.

In the Arboretum

The three specimens in our collection are mature 60-year-olds. All came from Oleg Polunin, of Godalming—a town in the Borough of Waverley, Surrey, England—as part of a large shipment of seed collected in Kashmir in 1956.

University of Washington Botanic Gardens Curator of Living Collections Ray Larson informed me that they were originally planted down in the old Witch-Hazel Family Collection, right across Arboretum Drive from the Camellia Collection. However, two were moved in 2012 as part of the construction of the bus and car turnaround for the New Zealand Forest project. Both plants were moved to an existing bed just to the northwest of the Witt Winter Garden, where they're doing well.

The third plant remains in the Witch-Hazel Family area. There was a fourth plant from the same 1956 accession that was removed from the collection as part of the New Zealand construction project. But there's good news: Two cuttings from that plant are now growing in the nursery at Center for Urban Horticulture and are large enough to be planted out in the Arboretum this spring.

Like me, Ray is quite fond of Parrotiopsis. "I've always thought it was one of the most interesting plants in the Hamamelidaceae, due to its interesting ornamental attributes—with bracts more like a dogwood than a witch hazel or Parrotia and suitable size for small gardens. There is also a fine specimen in the Miller Garden." 🛰

JOHN WOTT is the director emeritus of Washington Park Arboretum and a member of the "Bulletin" Editorial Board.



Q&A from the Miller Library's Plant Answer Line Myrmecochory: TrANTSportation!

BY REBECCA ALEXANDER

This regular column features Q&A selected and adapted from the Elisabeth C. Miller Library's Plant Answer Line program. If you'd like to ask a plant or gardening question of your own, please call (206) 897-5268 (UW Plant), send it via the library website (www.millerlibrary.org), or email directly to hortlib@uw.edu.

QUESTION: I have been trying to create a lush carpet of Cyclamen (both C. coum and C. hederifolium) under shrubs and trees in my front garden and, although there are still plants where I planted them originally, new ones seem to pop up in odd spots-some that are inconvenient, such as the middle of a gravel path. Am I tracking seeds through the garden on my shoes, or is something else moving the seeds around?

ANSWER: There is a good chance that ants are the transportation mechanism. Seed dispersal by ants is called myrmecochory, from the Greek words for "ant" (mýrmeks) and "circular dance" (khoreía). There are other plants besides cyclamen whose seeds are dispersed in this way: I have noticed the migration of patches

of snowdrops (Galanthus) in my garden and used to blame (or praise) squirrels for redesigning the landscape, but it seems the ants may have been responsible.

According to "Bees, Wasps, and Ants: The Indispensable Role of Hymenoptera in Gardens," by Eric Grissell (Timber Press, 2010), ants are seed-transport devices for over 3000 plant species in approximately 70 families. Here are just a few garden plants that rely on myrmecochory for seed dispersal: Asarum, Corydalis, Delphinium, Erythronium, Sanguinaria, Trillium, Viola and, of course, Cyclamen.

Myrmecochory is an example of a biological mutualism. Ants are drawn to the fleshy, nutrientrich coating—the elaiosome -on the seed of myrmecochorous plants, which they carry back to their nest. Once there, the ants strip off the elaiosome and feed it to their larvae. They then discard the seed (either in the nest or nearby in the midden—the ants'

Left: Cyclamen coum flowering in the Witt Winter Garden at Washington Park Arboretum in February.

rubbish heap), and it grows in its

Inset: A green-head ant (Rhytidoponera metallica), endemic to Australia, carrying the seed of an acacia by its fleshy elaiosome. (Photo by Dr. Benoit Guénard, University of Hong Kong)

Vision of the Mutualistic City

By Rebecca Alexander

all this time we have brought our hours to the mill the notched wheel of days grinding clockwise but making no lasting cloth of all our brief sun-spangled joys our daredevil rappelling off the edge of sameness to reach some kind of love and hold it close as breath there's nothing but the stone-celled pomace of routine all the roads through town are paved with its grit

but look: who's this strange one bleary with dreaming holding a pewter hand mirror to the sky as if the weak sunlight could shine it to an argent gleam that might reflect and capture memory the shapes that tilt their shadows just beyond the frame and hightail it back through the mouse hole of forgetting before thought can give them solid form

hark the one who sings through the doldrums of midday voice a felted hammer on spider-fine strings we try to catch the tune and wind it round a kite spool so we can play it out a few notes at a time lift us on a current and let us see the whole map the brick-red of industry and the sprawling cloud warehouses that grudge a small green recompense

the felled forest gives way to empty townhouses of towering bare windows where we might glimpse anonymous ghosts of wireless transfer wandering through rooms large enough to house extended families the dwellers in humble shelter scatter and dwindle but wait—a community of roots still underlies the slab concrete spores remember the shadows of poplar and oak

watch the labor of ants among the leaves rolling seeds of cyclamen and snowdrops through their tunnels to feed their young on the seedcoats' sweetness the dross of seeds left behind will flourish even at the waste edge of the highway some tendril of beauty reaches the sleeper under the tattered blue wing of a tarp wakes eye to eye with flowers blanketing the midden

new location away from the parent plant, thereby enhancing the spread and survival of the plant species. Early spring is a key time for this process, as there are fewer insects to eat, and ants are more dependent on plants as a food source.

Any gardener who has fretted over ants teeming through gaps between patio bricks and marching purposefully through the garden can take heart and anticipate the surprise of plants emerging in unexpected places. In "Genus Cyclamen in Science, Cultivation, Art and Culture," Alistair Aird and Peter Moore suggest that myrmecochory may even enhance the landscape: "A good way to get a striking effect from a naturalistic planting is simply to scatter seed roughly in the area you want. Ants might harvest much of it, but the seeds they drop on the way to their nests seem to end up in more fruitful planting positions than the most carefully sited human sowings. If you have been gathering your own cyclamen seed, even scattering the pods you think of as empty will probably produce a surprising number of plants."

Cyclamen is specially adapted to enable seed dispersal by ants. The distinctive coiling of the flower stalks that takes place after cyclamen blooms brings the fruits and seeds closer to ground level-and to the hungry ants.

Seed dispersal, whether autochorous (by the plant) or allochorous (by other agents), has both beneficial and problematic aspects. We are fortunate to have ants spreading plants we want in our gardens, but ants disperse seeds of some invasive plants, too.

Cytisus scoparius, Cirsium arvense and Carduus nutans are examples of invasive plants whose successful spread is abetted by ants. The seeds of Euphorbia esula are a particular favorite of ants. All of these plants are on the Washington State Noxious Weed list. It's always prudent to prevent the spread of noxious weeds by removing them from our landscapes. You may also wish to prevent seed formation by plants that are overly aggressive in your garden, even if they are not (or not yet!) officially noxious or invasive.

If you are finding *Cyclamen* where you don't want it, you can always try digging it up and transplanting to a preferable spot, but know that the ants may continue their labors, too. ••

REBECCA ALEXANDER is the Plant Answer Line librarian at the Miller Library, located in the UW Botanic Gardens' Center for Urban Horticulture (3501 NE 41st Street, Seattle). She is also a contributing editor to the "Bulletin."

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New Books *for*Pacific Northwest Gardeners

By Brian R. Thompson

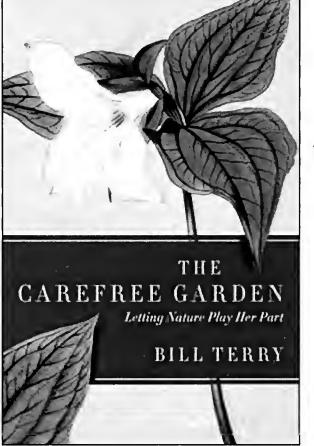
pon retirement at age 57, Bill Terry told his friends that he wanted to use his extra time to create the perfect garden. He already had a site. Although he and his wife lived in eastern Canada at the time, they owned property on British Columbia's Sunshine Coast.

"The Carefree Garden" is the story of making that property into a garden. Terry quickly discovered this wasn't a solo effort. "We should not resist being directed by Nature to some

extent. We can let her own a part of the garden, even control a majority share."

"Mother," as he affectionately calls nature, is an equal partner in this story. Typically, she speaks to him through a Steller's Jay, and she has a lot to say—mostly telling him all the things he's doing wrong.

This whimsy is very engaging, and many long-time gardeners will have practiced their own version (I have.), but Terry's book is also very practical. He is fond of simplicity, concentrating on native plants, starting his plant introductions from seeds, and using only the simple species forms when introducing exotics. His useful list of 99 perennials that thrive in our climate are almost all straight species (as opposed to cultivars), many of them native.



He concludes that the perfect garden is "...like the end of the rainbow, that never can be reached. I wouldn't know what to do if I did—reach it." I think most avid gardeners would agree.

An Early Vancouver Island Nursery

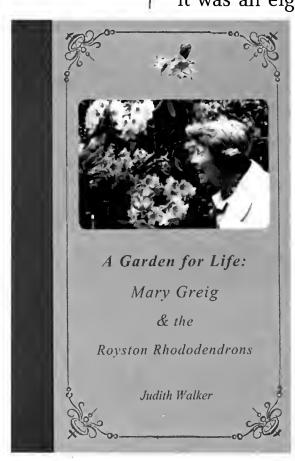
In the Winter 1945 issue of the "Bulletin," Else Frye recounts her trip to Royston Nursery on Vancouver Island, a significant journey at that time—but with a mecca of rhododendron cultivars and species waiting at the end.

"When we came away, the car was so full of plants that the botanist husband could not see out of the back window; our suitcase was fastened to the outside and the very last box was firmly planted on my lap!"

In 1936, when the nursery was established, it was an eight-hour trip (about 130 miles) on

mostly gravel roads from Victoria to Royston. Under these conditions, the establishment of a destination nursery is hard to imagine, but "A Garden for Life" recounts this engaging story.

The focus is on the lives of Mary and Ted Greig, who established and ran the nursery during its existence from 1936 to 1966. Many quotations, written at the time by Mary, provide an intimate look at their life. Other sources cite family and close friends from horticultural circles, giving



historical insight to the challenges and passions of regional gardeners.

Although the Greig's nursery closed at the time of Ted's death, the collection lives on at Stanley Park in Vancouver, B.C. Some 4500 plants were moved there between 1966 and 1967. Almost 50 years later, Steve Whysall wrote in the August 19, 2013 "Vancouver Sun": "... for avid greenthumbs looking for botanical treasures and keen to see something rare and out of the ordinary, there is nothing in the park like the Ted and Mary Greig Garden."

Mary Greig continued to be active in rhododendron circles into the 1980s, and many of the later stories in this book include familiar names from local garden clubs and plant societies. There is even mention of a new library named after Elisabeth C. Miller!

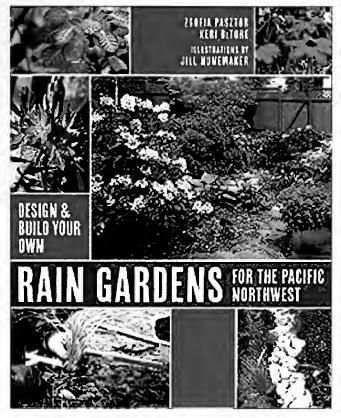
Rain Gardens

When I first picked up "Rain Gardens for the Pacific Northwest: Design and Build Your Own," I immediately turned to the back to look at the recommended plant list. But this list is placed at the end with good reason: It is not the place to start!

Instead, the authors thoughtfully take you through the many considerations that go into a rain garden. First of all, why do we need them in our climate? (Aren't all of our gardens

rain gardens?) How do the various areas of our region differ in their rainfall and geological factors? Once that's figured out, there is the human element. What do our various cities, counties, and other government entities think about, or allow with, rain gardens?

Once you have a handle on these questions, you need to look at your own property. What permits do I need to install one? Whom do I need to notify that I'm digging a big hole? Are there



in my area for rain gardens? How do I want to incorporate this new major project into my outdoor living space, so that it only positively affects my home and the properties of my neighbors? Finally, what do I actually need to buy from the hardware store and nursery to

build and plant a rain garden?

There are many questions, but this book takes you through them systematically and in great detail. Many instructive photographs and building diagrams help, too. I soon found myself getting intrigued by the process. Building a rain garden is not a simple project to complete over a free weekend, but if you are serious about it, this book is an excellent resource.

Japanese Horticulture

There are many books on Japanese gardens in the Miller Library, and even more on Japanesestyle gardens outside of Japan, but very few about the history of Japanese horticultural practices. A new book, "Japanese Horticulture: Origins and History," by Yōtarō Tsukamoto (1912–2005) and John L. Creech (1920–2009), helps fill this gap.

We are very fortunate to have this book at all. Although Tsukamoto and Creech had long planned this collaboration, the manuscript was not completed before their deaths, and it was only through the work of a group of Japanese editors that the book was published in 2015.

The authors begin their study by looking at the rich (over 6000 species) native flora of Japan, introducing the plant communities by reviewing 26 sites in the national park system. This

JAPANESE HORTICULTURE Origins and History



is an important starting point, as few of the plants used in early Japanese gardens were non-natives. A chapter follows on the iconic plants of Japan, including ornamental cherries, iris and azaleas, plus a few introduced plants—especially chrysanthemums and peonies.

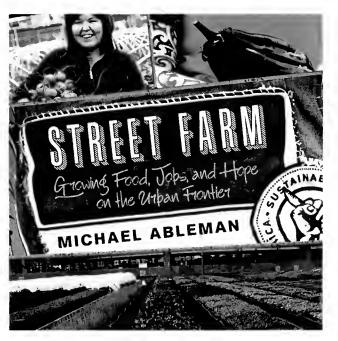
The book concludes with the long history of visiting horticulturists to Japan, and especially

the exchange between that country and the United States, such as the partnership that led to this book. "Among the complexities of Japan/United States relationships, plants have played a singular but often ignored role in fostering a harmonious social environment."

This book is a rare, new treasure in the Miller Library collection, and as such is not available to borrow. However, for all who are interested in the history of Japanese gardening—or perhaps who feel inspired to learn more after attending a tea ceremony at Seattle's Japanese Garden—I recommend seeking it out when visiting the library.

Urban Farming

"Street Farm" is not a gardening book, but I'm including it in this review because it has a



powerful message about the benefits of gardening, or—more accurately—urban farming, especially for those who do not have much else to bring hope and well-being to their lives. Author Michael Ableman is the co-founder of Sole Food Street Farms, a charitable organization that includes four farms on abandoned lots in downtown Vancouver, B.C. This book is

the story of that organization and the people it has hired to become the urban farmers.

The neighborhoods around these farms are not tourist attractions. The author points out that "...while Vancouver's prosperity is celebrated, its concentration of poverty and raw desperation endures in the midst of the polished and the preened."

There are losses on these farms, both of the produce and of the humans who tend the crops, but overall this is a book of hope. Ableman is very clear that this endeavor is not a panacea for the challenges of poverty, mental health disease, or addictions. He also recognizes his is a position of privilege by always having "... had a place to live and food to eat, and the color of my skin is not black or brown."

Moving Earth

My parents lived on Vancouver Island from 1945 until the early 1950s. Beginning in Nanaimo, they gradually moved up island to the town of Campbell River, while my father, an electrical engineer, worked with B.C. Power to install the first electrical infrastructure that connected the many communities with reliable power.

For a while, they lived in Comox, very near the Royston Nursery described in "A Garden for Life." As renters who moved frequently, my parents did not have an opportunity to establish a garden. I don't know if they knew of the Royston Nursery, but the stories they told of living in that area are very similar to those of Mary Greig.

For example, in June 1946 a powerful earthquake (7.3 on the Richter scale) had its epicenter near Comox and Royston. Both my parents and the Greigs were fortunate that their homes sustained only minimal damage, but an estimated 75 percent of the chimneys in the area were destroyed. My parents joked about the event, mostly remembering how their piano slid from one room, through the doorway to another. Mary Greig had a similar light-hearted reaction. She wrote to family, "What was all the fuss about?"

Besides the human stories, all gardeners will relate to the challenges of growing plants in less-than-ideal circumstances—challenges such as outsmarting pests, (in this case, a sophisticated rat population that only chooses the best vegetables). No less interesting is the harvesting of crops and the marketing of them to the more than 30 restaurants and five farmers' markets that Sole Food supplies, as well as the farm's CSA (Community Supported Agriculture) shares and

donations of over \$20,000 per year to community kitchens.

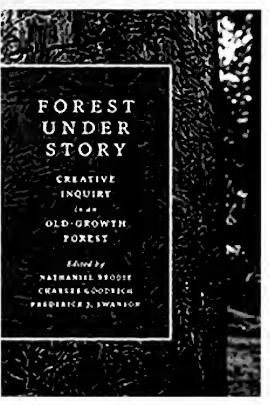
Forest Writers in Residence

The H. J. Andrews Experimental Forest east of Eugene was established in 1948. At nearly 16,000 acres, it covers the entire Lookout Creek watershed on the west side of the Cascades. The Forest is used to study ecosystems, wildlife, logging practices, and many other natural and human processes in both old-growth and managed forests.

Started in 2003, the Long-Term Ecological Reflections program through Oregon State University sponsors "writers-in-residence" to spend one to two weeks in the Andrews Forest. Collectively, these writers "... come to know the forest via the paths laid down in stories, stories told in anecdotes, photographs, essays, and poems, or in hypotheses, data, and graphs."

The founders of this program are ambitious; they expect it to continue for 200 years. Fortunately, as readers, we don't have to wait so long to read the results. Some of the early creativity is now captured in the book "Forest Under Story."

This is a collection of poems, essays, and even field notes. Interspersed sections titled "Ground Work" provide the scientific basis that supports the more artistic writing. The black and white photography of Bob Keefer offers further context. This is a book to savor slowly, with lessons that are applicable to all coastal forests.



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